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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/611,737
Filing Date: July 01, 2003
Appellant(s): ROBINS, DAVID R.

Jon M. Isaacson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 05/28/2010 appealing from the Office
action mailed 12/28/2009

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 29-31, 36-37, 42-56 are pending in the application.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,859,711

Barry et al.

12-1999

6,628,899 Kito 09-2003

5,333,246 Nagasaka 07-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 29-30, 36-37, 43-45, 47-51, 54-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Barry et al. (US 5,859,711).

Regarding claim 36, Barry '711 discloses a system (Figs. 1-15) for printing a plurality of digital images (Job 352, fig. 12), the system comprising:

processing means (RIP 350, fig. 12) for determining a subset (Color 358, fig. 12) of the plurality of digital images (352, fig. 12) which require image processing to meet an image parameter (multiple pages of images are separate and distinct and have associated therewith parameters that define the nature of the document as to printing, col. 14, lines 55-60), the subset including fewer than all of the plurality of digital images (Job 2, fig. 12);

first image processing means (354, fig. 12) for performing image processing on the digital images in the subset to produce a first plurality of processed images (The black and white job is routed to a first job block 356, col. 14, lines 60-65, fig. 12);

print engine activation means (Job Manager 360, fig. 12) for activating a print engine (Engine 362, fig. 12);

first printing means (364/368, fig. 12) for printing the first plurality of processed images using the print engine (The job would be defined as a single group and would be submitted to the engine, col. 14, lines 1-10).

Regarding claim 37, Barry '711 discloses the system (Figs. 1-15), further comprising:

second image processing means (Virtual Job Router 354, fig. 12) for performing image processing on a second set of images (Job 2 / 358, fig. 12) including fewer than all of a plurality images (Job 352, fig. 12) to produce a second plurality of processed images (Job 2 Pages: 2, 4, 6 Color, fig. 12);

second printing means (Engine B 366, fig. 12) for printing the second plurality of processed images without stopping and reactivating the print engine (i.e., virtual job routing is that a particular page can have the parameters thereof examined after the page has been assembled separate from the initial multi-page print job, and a determination made as to how to handle that particular job. This will allow the job to be routed to the most efficient engine. Therefore, the print engine can run continuously and efficiently; Col. 15, lines 20-25).

Regarding claims 29-30, claims 29-30 are the method claims of device claims 36-37, respectively. Therefore, method claims 29-30 are rejected for the reason given in device claims 36-37.

Regarding claim 47, Barry '711 discloses the system (Figs. 1-15), further comprising: means (419, fig. 14) for receiving a user designation of the image processing to be performed on the digital images in the subset (a multi-page document

is input to the system. This document is input from a PC or some type of user, col. 16, lines 1-30, and fig. 14).

Regarding claim 48, Barry '711 discloses the system (Figs. 1-15), further comprising:

means for resizing the first plurality of processed images before printing the first plurality of processed images, wherein the resizing is based on the size of an output medium upon which the first plurality of processed images will be printed (a job parser 412, which is operable to retrieve pages from a memory 414, which pages are basically compressed bit maps. These compressed bit maps, such as to reduce in size, are oriented such that each page defines a bit mapped image, with each page having associated therewith information regarding the **parameters** of the page with respect to printing; see col. 16, lines 60-68 and col. 17, lines 1-5, fig. 14).

Regarding claim 49, Barry '711 discloses the system (Figs. 1-15), wherein the first image processing means (354, fig. 12) performs the image processing such that the time required to print the first plurality of processed images (Job 1 of B and W images, fig. 12) is less than the time required to print the digital images in the subset (Job 2 of Color images, fig. 12), whereby the time required to print the first plurality of processed images (Job 1, fig. 12) and the digital images (Job 2, fig. 12) from the plurality of digital images (Job 352, fig. 12) not in the subset is less than the time required to print the

plurality of digital images (color image with higher resolution pages take longer to print, col. 13, lines 50-60, fig. 12).

Regarding claim 50, Barry '711 discloses a computer-readable storage medium (Workstation 10, fig. 1) comprising instructions (Processor 14 / Software RIP 350, figs. 1, 12) for printing a plurality of digital images (Job 352, fig. 12), the instructions comprising instructions for:

determining a subset of the plurality of digital images (Job 1, fig. 12) which require image processing (col. 17, lines 30-40) to meet a defined image parameter (multiple pages of images are separate and distinct and have associated therewith parameters that define the nature of the document as to printing, col. 14, lines 55-60), the subset including fewer than all of the plurality of digital images (Job 1 of pages 1, 3, 5 Black and White, fig. 12);

performing image processing (col. 17, lines 30-40) on the digital images in the subset to produce a first plurality of processed images (The black and white job is routed to a first job block 356, col. 14, lines 60-65, fig. 12);

activating a print engine (Job manager 360 will route the black and white job to a first engine 362, col. 14, lines 60-67, fig. 12);

printing the first plurality of processed images using the print engine (Job 1 of B and W images, fig. 12).

Regarding claim 51, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1), the instructions (Processor 14 / Software RIP 350, figs. 1, 12) further comprising instructions for:

performing image processing (col. 17, lines 30-40) on a second set of images (Job 2, fig. 12) including fewer than all of the plurality of images to produce a second plurality of processed images (Job 2 of pages 2, 4, 6 color images);

printing the second plurality of processed images without stopping and reactivating the print engine (i.e., virtual job routing is that a particular page can have the parameters thereof examined after the page has been assembled separate from the initial multi-page print job, and a determination made as to how to handle that particular job. This will allow the job to be routed to the most efficient engine. Therefore, the print engine can run continuously and efficiently; Col. 15, lines 20-25).

Regarding claim 54, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1), wherein the image processing (col. 17, lines 30-40) performed on the first set of images is designated by a user (a multi-page document is input to the system. This document is input from a PC or some type of user, col. 16, lines 1-30, and fig. 14).

Regarding claim 55, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1, the instructions (Processor 14 / Software RIP 350, figs. 1, 12) further comprising instructions for:

resizing the first plurality of processed images before printing the first plurality of processed images, wherein the resizing is based on the size of an output medium upon which the first plurality of processed images will be printed (a job parser 412, which is operable to retrieve pages from a memory 414, which pages are basically compressed bit maps. These compressed bit maps, such as to reduce in size, are oriented such that each page defines a bit mapped image, with each page having associated therewith information regarding the parameters of the page with respect to printing; see col. 16, lines 60-68 and col. 17, lines 1-5, fig. 14).

Regarding claim 56, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1, wherein the instructions (Processor 14 / Software RIP 350, figs. 1, 12) for performing image processing (col. 17, lines 30-40) comprises instructions for performing image processing such that the time required to print the plurality of digital images (Job 1 of B and W images, fig. 12) is less than the time required to print the digital images in the subset (Job 2 of Color images, fig. 12), whereby the time required to print the first plurality of processed images (Job 1, fig. 12) and the digital images (Job 2, fig. 12) from the plurality of digital images (Job 352, fig. 12) not in the subset is less than the time required to print the plurality of digital images (color image with higher resolution pages take longer to print, col. 13, lines 50-60, fig. 12).

Regarding claims 43-45, claims 43-45 are the method claims of device claims 54-56, respectively. Therefore, method claims 43-45 are rejected for the reason given in device claims 54-56.

Claims 42, 46, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et al. (US 5,859,711) in view of Kito (US 6,628,899).

Regarding claim 46, Barry '711 does not explicitly show the system, wherein the means for performing image processing comprises means for performing at least one of red-eye reduction, contrast correction, or brightness correction.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Kito '899. In particular, Kito '899 teaches the system (Image Photographing system 10, figs. 1A-1B), wherein the means (Image Processing system 26, fig. 1B) for performing image processing comprises means (38, fig. 6) for performing at least one of red-eye reduction, contrast correction, or brightness correction (i.e., color balance adjustment, contrast correction, brightness correction, saturation correction, sharpness processing, red-eye correction when photographing is carried out; see col. 13, lines 40-50).

In view of the above, having the system of Barry and then given the well-established teaching of Kito, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Barry as taught by Kito to include: the system, wherein the means for performing image processing comprises means for performing at least one of red-eye reduction, contrast correction,

or brightness correction, since the modification would ensure the system capable of effective correcting conditions so that high-quality images can be output in a consistent manner.

Regarding claim 53, Barry '711 does not show the computer-readable storage medium, wherein the image processing comprises at least one of red-eye reduction, contrast correction, or brightness correction.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Kito '899. In particular, Kito '899 teaches the computer-readable storage medium (24a, fig. 1B), wherein the image processing (Image Processing system 26, fig. 1B) comprises at least one of red-eye reduction, contrast correction, or brightness correction (i.e., color balance adjustment, contrast correction, brightness correction, saturation correction, sharpness processing, red-eye correction when photographing is carried out; see col. 13, lines 40-50).

In view of the above, having the system of Barry and then given the well-established teaching of Kito, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Barry as taught by Kito to include: the computer-readable storage medium, wherein the image processing comprises at least one of red-eye reduction, contrast correction, or brightness correction, since the modification would ensure the system capable of effective correcting conditions so that high-quality images can be output in a consistent manner.

Regarding claim 42, claim 42 is the method claim of device claim 53.

Therefore, method claim 42 is rejected for the reason given in device claim 53.

Claims 31, 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry et al. (US 5,859,711) in view of Nagasaka (US 5,333,246).

Regarding claim 52, Barry '711 does not explicitly show the computer-readable storage medium, wherein said performing image processing on the digital images in the subset is performed by a print client, wherein said activating a print engine and said printing the first plurality of processed images using the print engine are performed by a print server, and wherein the instructions further comprise instructions for: the print client transmitting the first plurality of processed images to the server over a communications bus.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Nagasaka '246. In particular, Nagasaka '246 teaches the computer-readable storage medium (Device driver 3, memory unit 204, fig. 3),

wherein said performing image processing on the digital images in the subset is performed by a print client (i.e., the user's printing request is operated by the user through the computer 6a / client 6a for the first set of images; see col. 6, lines 40-68 and col. 7, lines 1-10, fig. 2),

wherein said activating a print engine (col. 12, lines 9-45, figs. 5, 10 and it should be noted that print engine activation means for activating a print engine is inherent in the print engine) and said printing the first plurality of processed images using the print

engine are performed by a print server (i.e., the client process 210 executes a printer control code addition processing 221 for the plurality of picture element data in accordance with the physical specifications of the printer 21/ printing unit 135; see col. 7, lines 35-50, figs. 2, 34), and wherein the instructions further comprise instructions (The generated printing request is received by the software 132 via the network, col. 30, lines 10-50, fig. 34) for:

the print client (Computer 6a, fig. 34) transmitting the first plurality of processed images (a printing request is generated from any application software operative in the computer 6a, col. 30, lines 5-10) to the server (Computer 133, fig. 34) over a communications bus (7, fig. 34).

In view of the above, having the system of Barry and then given the well-established teaching of Nagasaka, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Barry as taught by Nagasaka to include: the computer-readable storage medium, wherein said performing image processing on the digital images in the subset is performed by a print client, wherein said activating a print engine and said printing the first plurality of processed images using the print engine are performed by a print server, and wherein the instructions further comprise instructions for: the print client transmitting the first plurality of processed images to the server over a communications bus, since Nagasaka stated in col. 1, lines 15-20 that such a modification would ensure the printing operation, which can be applied to a system in which a plurality of information processing units are connected in a network fashion.

Regarding claim 31, claim 31 is the method claim of device claim 52.

Therefore, method claim 31 is rejected for the reason given in device claim 52.

(10) Response to Argument

Appellant, on page 7 of the Appeal Brief filed 05/28/2010, argues that "Barry does not teach determining that the pages in print job 352 do not yet meet a defined image parameter or that the pages require image processing to meet that defined image parameter. Barry teaches merely determining whether the pages are in black and white or in color".

In response: "do not yet meet a defined image parameter" is not part of the claimed limitations. The claim states "determining a subset of the plurality of digital images which require image processing to meet a defined image parameter."

Barry fig. 12, column 14, lines 48-65 clearly teaches determining subset (subset of color) of digital image (image on the page) after RIP process 350. The image parameter according to Barry is color parameter or black and white parameter etc. (column 14, lines 50-60, also see column 17, lines 1-5, the examiner is selecting color to read on the image parameter in the claims). The separated color images are further processed by different color printers/engines column 15, lines 1-25.

Fig. 27, column 29, lines 15-60 further teaches how the image are processed after the RIP and determined to be color image (i.e. the image is in the color subset and is to be processing according to fig. 27 and column 29, lines 15-60). One of the processes is taking an input parameter value of the color image of 255 and converted it

into a value of 217 (column 29, lines 55-60). The purpose of the image processing is to have the digital image to meet a defined image parameter (the color of the image that should have been printed, column 29, lines 49-50).

Appellant, on the bottom of page 7, Brief, argues that "What Barry lacks is a determination that the nature of the pages requires image processing to meet a defined image parameter".

In response: Barry fig. 12, column 14, lines 48-65 clearly teaches determining subset (subset of color) of digital image (image on the page) after RIP process 350. The image parameter according to Barry is color parameter or black and white parameter etc. (column 14, lines 50-60, also see column 17, lines 1-5, the examiner is selecting color to read on the image parameter in the claims). The separated color images are further processed by different color printers/engines column 15, lines 1-25.

Fig. 27, column 29, lines 15-60 further teaches how the image are processed after the RIP and determined to be color image (i.e. the image is in the color subset and is to be processing according to fig. 27 and column 29, lines 15-60). One of the processes is taking an input parameter value of the color image of 255 and converted it into a value of 217 (column 29, lines 55-60). The purpose of the image processing is to have the digital image to meet a defined image parameter (the color of the image that should have been printed, column 29, lines 49-50).

Appellant, on the bottom of page 8, Brief, argues that "Barry fails to teach or suggest performing image processing on the digital images in the subset where the image processing is require[d]...to meet a defined image parameter".

In response: Fig. 27, column 29, lines 15-60, Barry teaches the color printer is not perfect and all the input color data are required to be calibrated using a lookup table such that the calibrated image data will meet a defined image parameter which is what the image should have been printed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Allen H. Nguyen/

Examiner, Art Unit 2625

Conferees:

/King Y. Poon/

Supervisory Patent Examiner, Art Unit 2625

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